

CLAIMS

1. Use, as floating support, of a support based on cellulose and/or natural fibres, of which all or some of the OH functional groups have reacted with a grafting reagent RX, where R is a suitable hydrophobic group in order to be able to be in the liquid state at a temperature of at least 200°C at atmospheric pressure and in order to be able to react on the OH functional groups at least under certain reaction conditions, while producing covalent grafting of hydrophobic groups R onto the OH functional groups with formation of a volatile compound HX under the reaction conditions.
2. Use according to Claim 1, characterized in that RX is a fatty acid halide.
3. Use according to Claim 1, characterized in that RX is a saturated or unsaturated aliphatic fatty acid halide comprising at least 16 carbon atoms.
4. Medium, in particular for the treatment of aerobic lagoons existing in the form of a support based on cellulose and/or natural fibres, of which all or some of the OH functional groups have reacted with a grafting reagent RX, where R is a suitable hydrophobic group in order to be able to be in the liquid state at a temperature of at least 200°C at atmospheric pressure and in order to be able to react on the OH functional groups at least under certain reaction conditions, while producing covalent grafting of hydrophobic groups R onto the OH functional groups with formation of a volatile compound HX under the reaction conditions, the medium being characterized in that it additionally contains carbon black.
5. Medium according to Claim 4, characterized in that the support additionally contains epichlorohydrin resin.
6. Medium according to Claim 4, characterized in that the support contains as dry parts:
  - between 90 and 98% of north resinous fibres, advantageously 95%
  - between 1 and 4% of carbon black, advantageously 3%

- between 1 and 3% of epichlorohydrin resin, advantageously 2%.
7. Medium according to Claim 4, characterized in that the grafting reagent is a fatty acid halide.
  - 5 8. Medium according to Claim 7, characterized in that the fatty acid is behenic acid.
  - 10 9. Filtering medium based on activated carbon, characterized in that it comprises three superposed layers, respectively an inner layer and two top and bottom outer layers,
    - the inner layer consisting of 80 to 95% by dry weight of activated carbon, the balance for 100% consisting of organic and/or inorganic chemical fibres,
    - 15 - the bottom layer comprising from 45 to 100% by dry weight of organic chemical fibres having OH functional groups and optionally inorganic fibres, the possible balance for 100% consisting, where appropriate, of activated carbon and/or of a material having a density below 0.9, all or some of the OH functional groups having
    - 20 reacted with a grafting reagent RX, where R is a suitable hydrophobic group in order to be able to be in the liquid state at a temperature of at least 200°C at atmospheric pressure and in order to be able to react on the OH functional groups at least under certain reaction conditions, while producing covalent grafting of hydrophobic groups R onto the OH functional groups with formation of a volatile compound HX under the reaction conditions,
    - 25 - the top layer comprising from 5 to 25% by dry weight of activated carbon, the balance for 100% consisting of organic and/or inorganic chemical fibres.
  - 30 10. Filtering medium according to Claim 9, characterized in that RX is a fatty acid halide, in particular a saturated or unsaturated aliphatic acid halide comprising at least 16 carbon atoms, advantageously behenic acid.
  - 35 11. Medium according to Claim 9, characterized in that the bottom layer contains at least 30% by weight of organic fibres having OH functional

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groups.

12. Medium according to Claim 9, characterized in that the activated carbon present in the top layer and optionally in the bottom layer is in the form of fibres.  
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13. Filtering medium according to Claim 9, characterized in that it contains activated carbon in the form of fibres intended to adsorb CH<sub>4</sub> and H<sub>2</sub>S, whose characteristics are the following:  
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  - yarn count of the filament 1 to 1.5 dtex,
  - specific surface area: 1 400 m<sup>2</sup>/g,
  - amount of microporosity: 95%.
14. Filtering medium according to Claim 9, characterized in that the top layer is coated with a layer based on a photocatalytic agent.  
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15. Filtering medium according to Claim 14, characterized in that the layer based on a photocatalytic agent exists in the form of a mixture comprising between 10 and 70 parts, advantageously 50 parts of an aqueous colloidal dispersion of silicon dioxide (SiO<sub>2</sub>), the balance for 100 parts consisting of TiO<sub>2</sub> anatase.  
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16. Filtering medium according to Claim 15, characterized in that the particles of SiO<sub>2</sub> represent from 1 to 50% by weight of the colloidal aqueous dispersion and have a diameter of between 10 and 40 nm.  
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17. Filtering medium according to Claim 15, characterized in that the layer based on a photocatalytic agent comprises between 5 and 40 g/m<sup>2</sup>, advantageously 20 g/m<sup>2</sup> of photocatalytic agent.  
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18. Filtering medium based on activated carbon which is characterized in that it comprises three superposed layers, respectively an inner layer and two outer layers, the inner layer consisting of a 80 to 95% by dry weight of activated carbon, the balance for 100% consisting of organic and/or inorganic chemical fibres, the first outer layer comprising from 45 to 95% by dry weight of organic and/or inorganic chemical, the balance for 100% consisting of activated carbon and/or of a material having a  
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density of less than 0.9, the second outer layer comprising from 5 to 25% by dry weight of activated carbon, the balance for 100% consisting of organic and/or inorganic chemical fibres, and in that the weight of the inner layer is between 40 and 200 g/m<sup>2</sup> and the weight of the outer layers is between 10 and 100 g/m<sup>2</sup>.